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THE MACDONALD LASSIE



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Cover: R. D. Wilson's cover art this month is the main street of Canada's potash boom town — Esterhazy, Saskatchewan.

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the university at the service of society



It is fashionable today to refer to changes in education as "revolutionary". The reorganization of school districts, the introduction of the non-graded classroom and the use of computer-assisted learning could be referred to as revolutionary changes.

Rather than a "revolutionary" change in adult education at McGill University, an evolutionary change is taking place that will affect all of you in Quebec and many in Canada and foreign countries. It is really an evolutionary change since it is built on a basic foundation established by the university over the past thirty years.

The idea that academic institutions should reach out to serve the workaday needs of a developing society is not new. But it is only in recent years that public service by universities has become a partial reality. For many years this university has been involved in various forms of public service through such channels as Farm Radio Forum and the Management Institutes.

This month the university is giving formal recognition to these extension activities and is in fact providing a mandate for public service through the establishment of the McGill Centre for Continuing Education. This centre will be an interdisciplinary coordinating unit with the key objective of making available to people, wherever they live, the resources of the university.

This involves the appointment of several associate directors of continuing education from each of the faculties and schools most directly concerned. It also involves the ap-

pointment of a director of community programs and two associates whose responsibility will be to extend the resources of the campus to individuals and groups in off-campus locations.

At Macdonald College, this new organizational structure will give the scope and opportunity to develop new and additional programs in line with the service philosophy. In this case, the extension-service activities as related to agriculture, home economics and education are serving as the model for a university extension program which involves staff, students and the total community.

In view of this reorganization, several new appointments are being made. Announcement of these and of programs which will relate to the rural community will be published in the next issue of the Journal.

As an article by the Carnegie Foundation for the Advancement of Teaching recently stated,

"In practical terms, then, every university must realize that it can no longer adopt the simple course of rejecting public service. Interdependence between the university and society has become too great for that. The university MUST have society's support. Society MUST have access to the university's resources. Were the university to turn its back on society's needs, it would be tantamount to self-destruction."

The same applies to McGill. With these "evolutionary" changes, it is hoped that the strong university-community link can be strengthened even more. Watch!

The Editor

potash

*Dr. K.M. Pretty, Vice-President
Gaetan A. Lussier, Agronomist,
American Potash Institute*

Potash is one of the three basic ingredients in mixed chemical fertilizers, the others being nitrogen and phosphorous. It is also one of 14 elements known to be essential for all plant life. Similarly, it is an essential element for all animal life. It is the purpose of this paper to describe briefly the importance of potassium in plant and animal life, as well as to point out the importance of the potash industry to Canada's industrial development and growth.

Potash is a generic term for soluble salts of the element potassium. Its name is derived from the "Pot Ashes" which were originally obtained by evaporating, in iron pots, a solution of wood ashes. In the agricultural context, it is most frequently used as a means of describing the content of potassium oxide (K_2O) in various fertilizer materials. The potassium content of minerals is stated in terms K_2O because it was originally thought that potassium was effective as fertilizer only in this form.

history of potash use

Potash was first used in the production of soaps prior to 1600. The first crude potash was made from wood ashes by Virginian colonists. Exports to Europe, which began in 1625 continued to grow until 1810. With the enforcement of embargoes prior to the Civil War, Montreal emerged as a leading port for potash export. However, with the development of a new process for production from potash-bearing minerals in Europe, this industry rapidly declined.

The importance of potassium for plant life was first recognized by the German Chemist, Von Liebig. He has been described as the "Father of the Potash Industry". Liebig's discoveries on the necessity of potassium for plant growth came at a fortuitous time. The potash deposits in Germany were being explored but progress was slow in converting these early positive results into farmer usage.

Knowledge of a need for potassium in animal tissue is more recent. In 1883, Ringer found that it regulated normal heart beat. Since then, hundreds of experiments have been conducted to show the evidence of a need in animal life.

Up to the outbreak of World War I, the German potash industry was the sole source of potash for North America. In 1925, while exploring for oil near Carlsbad in New Mexico, potash salts were discovered and production began in 1931.

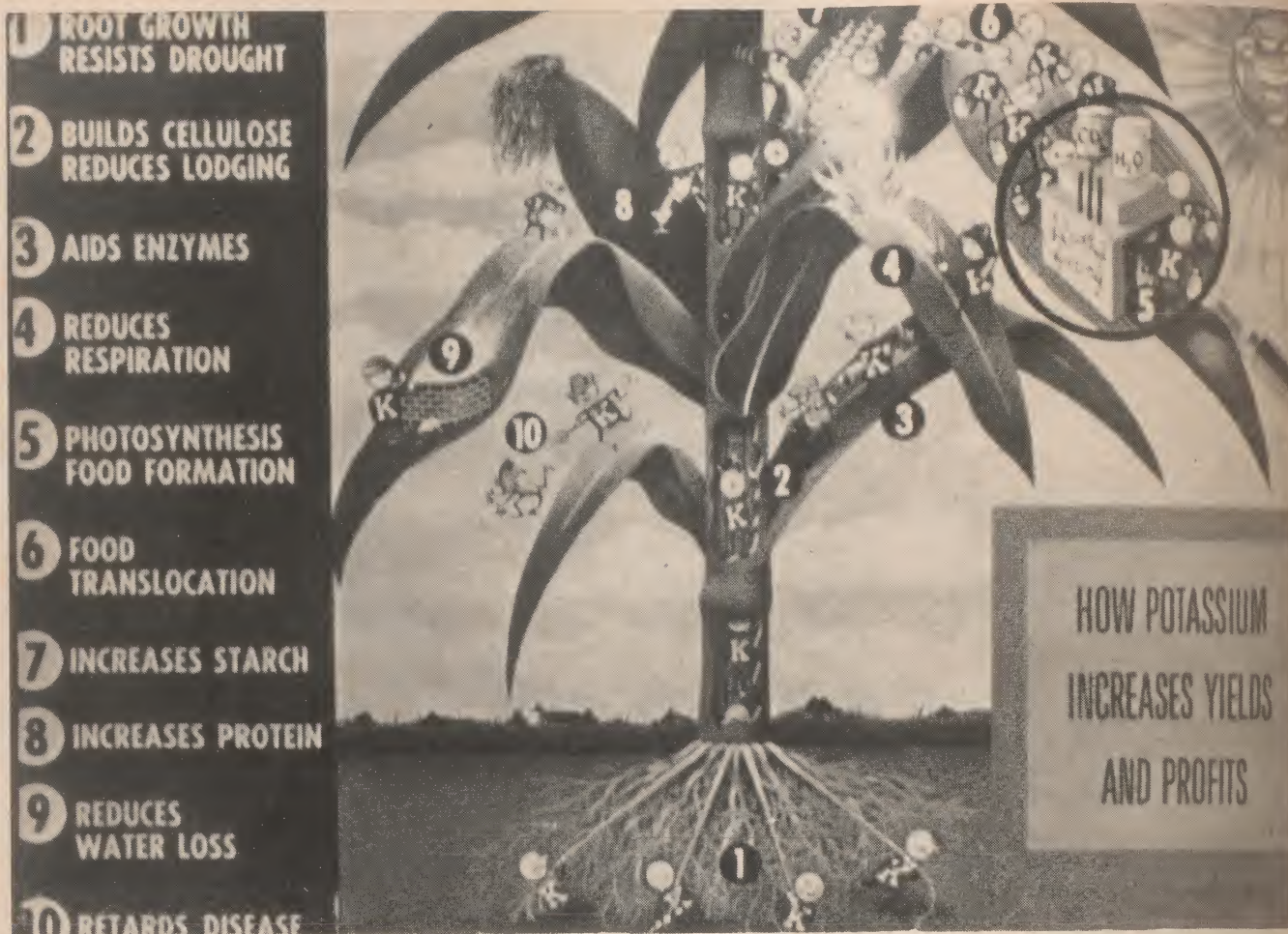
The first evidence of the potash deposits which lie beneath the Saskatchewan plains was recognized in

1943. Many problems have been encountered in exploiting these deposits, because most of them lie at depths up to 3500 feet or more, under an unconsolidated section of sand, clay and silt bearing water, called the Blainmore Formation. Finally, to succeed in sinking a shaft, companies were obliged to freeze the ground. Nine companies are either producing potash or developing facilities. Several other companies are engaged in exploration programs.

World reserves of recoverable potash have been estimated at about 120,000 million short tons with the Saskatchewan deposits accounting for about half of the total. For this reason, it has been predicted by economists that within a few years potash will stand second only to wheat in the province in terms of product value. The export of potash will be a substantial contributor to Canada's balance of trade.

The principal users of potash as fertilizer at the present time are Europe, the United States and Japan. Demand in these countries increased rapidly during recent years. However, any estimates of future fertilizer demand must be considered in the context of the world food and population balance. Developing countries in Asia, Africa and Latin America can be expected to use increasing amounts of potash.





potash in crop production

Without potassium there is no plant life. When available in sufficient quantities, plants absorb it easily. Unlike most other essential nutrients, potassium does not become a part of the chemical structure of plants. However, research has uncovered several important functions of this element.

1. *increases root growth and improves drought resistance*

Plants contact a relatively small proportion of the soil volume so that any practices which will increase the amount of root growth and the depth of penetration will improve the absorption of nutrients and soil moisture.

2. *builds cellulose and reduces dodging*

Cellulose is the structural material which gives strength to stem and

stalks. Many experiments have shown that a lack of potassium results in plants with weaker stems which are more susceptible to breakage.

3. *aids enzyme actions*

Enzymes are organic compounds which catalyse or speed up many reactions in plants. Potassium serves as an activator of "spark plug" in initiating enzymatic reactions.

4. *reduces respiration, preventing energy losses*

A plant uses energy to perform its normal growth processes. Energy is released during the respiration process. Potassium regulates respiration rate, thereby contributing to efficiency.

5. *aids in photosynthesis and food formation*

Photosynthesis is the process whereby carbon dioxide from the air along

with water and sunlight, are combined in the presence of chlorophyll (the green pigment in leaves). Potassium not only increases the amount of leaf area available but also maintains chlorophyll content. When in short supply leaves are small and may turn yellow or brown. Under these circumstances, photosynthesis slows down.

6. *gives grain high in starch*

Poorly filled kernels of cereal grains and corn are often due to a low level of starch storage. If the plant dies prematurely as a result of low levels of available potassium, the immature kernel becomes light and chaffy due to a failure to fill with starch.

7. *increases protein content of plants*

With adequate nitrogen and a low level of potassium, protein formation is retarded.

8. maintains turgor, reduces water loss and wilting

Sufficient water must be available inside the plant to insure maximum operation of the manufacturing and transport processes. Research has shown that low potassium results in stomata which open more widely, thereby contributing to increased water loss and greater susceptibility to wilting.

9. helps retard diseases

A healthy, vigorous plant is less susceptible to disease infestations. Experiments with many crops of economic importance show the importance of adequate potassium in reducing the incidence of disease.

The cumulative effect of these various functions of potassium is to improve yield, quality and persistence. However it must be recognized that balanced nutrition is a requisite for successful crop production. A basic principle in the fertilization of crops must be to apply sufficient amounts of all elements to insure maximum economical yields.

Crops vary in their requirements for potassium depending on plant species and yield objectives. Similarly, soils vary in their ability to supply potash from native soil supplies. Judicious fertilization requires that the needs of the crops and the ability of the soil to supply nutrients be considered. It is for this reason that soil testing, plant analysis and a knowledge of requirements are essential in making fertilizer recommendations to the farmer.

Table 1 indicates the amounts of potassium required by several common crops when high yields are an objective.

potassium in the soil

Soils vary greatly in their total potassium content, from as low as a few hundreds pounds per acre in the plow layer on coarse, sandy soils to as much as 20 tons or more in many clay soils.

These figures, when compared with the annual crop requirements in Table 1, may suggest that most soils contain sufficient potassium for plant growth. However, much of the total potassium is in forms not available to plants.

Available potassium may vary from a few pounds per acre to more than 1,000 pounds in some soils. As crops yields increase, and soils become depleted of available potassium, larger amounts must be applied to adequately satisfy plant demands.

potassium in animal and human nutrition

Potassium is concentrated in such tissues and body organs as muscle, red blood cells, kidney, heart, bone, liver, pancreas and brain.

Fresh fruits, vegetables and meat ordinarily provide sufficient potassium for man. Unfortunately, much of this potassium is lost in the cooking process.

For animals, grasses and legumes, especially if grown on well fertilized soils, harvested at early physiological growth stage, and properly stored, are excellent sources of potassium.

In both cases it is logical to assume that deficiencies of potassium are unlikely to occur if a balanced diet or ration is provided.

mineral sources of potash fertilizer

Almost 95 per cent of all the potash used in the world is applied as a fertilizer for the improvement of crop yields and quality.

The other 5 per cent used is for industrial uses of potassium: soaps and detergents, glass and ceramics, textiles and dyes, chemicals and drugs.

Muriate of potash or potassium chloride (60-62 per cent K_2O) is the most important and least expensive fertilizer source.

Crops such as tobacco, and to a lesser extent, potatoes, have a very low chloride tolerance in view of its deleterious effects on quality. Con-

sequently, potassium sulfate (50-53 per cent K_2O) is a desirable source for such crops. On soils low in available magnesium, a combined sulfate of potash magnesia (22 per cent K_2O , 18 per cent MgO), can be an effective source of both nutrients. More recently, potassium nitrate (44 per cent K_2O , 13 per cent N) has been introduced on the market. These are the major sources of potassium for agricultural purposes.

conclusion

Potassium is an essential element for all plant and animal life. Even though many soils contain sufficient potassium to theoretically meet crop needs for an indefinite period, the rate of release is too slow to satisfy the demands of rapidly growing, high yielding.

The figures for potash consumption in Canada, Ontario and Quebec for 1960 and 1966 in Table 2 indicate a total increase of 67 per cent in the six year interval. Average application rates are 5 pounds per harvested acre in Canada, 23 pounds in Ontario and 15 pounds in Quebec. The low national value is due to the relatively high levels of available potassium in the soils of Western Canada.

Consumption values in Ontario and Quebec are by no means adequate. A comparison of these average rates of application with the amounts required for good crop yields indicates that soils are being mined of available potassium.

Table 1	Potassium Removal by Several Crops	
Crops	Yields/Acre	K_2O Removed (lbs/acre)
Silage Corn	30 Tons	245
Grain Corn	150 bushels	45
Barley	100 bushels	150
Alfalfa	6 Tons	270

Table 2.	Potash Consumption in short tons for 1960 and 1966 for Canada, Ontario and Quebec.		
Year	Canada	Ontario	Quebec
	(62.44)	(7.99)	(5.21)
1960	89,275	50,761	19,658
1966	150,000	90,000	32,400

Figures in brackets are millions of harvested acres.



at Macdonald College . . .

research in corn production

Corn growers in Quebec are asking, "How early and how thick should I plant my grain corn?" From his experimental plots, Dr. R. I. Brawn provides some of the answers.

Although Quebec must still be considered to be on the northern margin of the potential corn growing area in North America, three areas are showing considerable promise. Southwest of Montreal in the Howick-Ormstown-Huntingdon area, east of Montreal around St. Hyacinthe and north-east of Montreal in l'Assomption County, the number of acres of grain corn and yields have both been climbing. But the need for a Quebec-based corn philosophy is apparent.

Grain corn production in Quebec has been considered a marginal enterprise in the past. The older hybrids and open pollinated varieties were ill adapted to the region. Traditionally, corn planting was delayed until the other spring work was completed in the belief that the corn would benefit from the warmer soil and still have time to grow and mature. Scant attention was given to achieving a suitable plant density; corn was planted as custom dictated; little or no fertilizer was used. It is no wonder that little success was achieved in producing a satisfactory crop of mature grain. A corn philosophy was definitely lacking and corn research was impeded by this indifference.

A continuing series of experiments is being conducted by Macdonald

College to develop a corn philosophy especially adapted to the needs of this province. One such study, supported by a research grant from The House of Seagram, was conducted in 1965 and 1966 by the Department of Agronomy to supply information on the effect of date of planting and rate of planting on yield and maturity of grain as a basis for formulating recommendations to Quebec farmers.

The newer corn hybrids, which are early enough to mature in southwestern Quebec, are relatively small and low yielding on a per plant basis, suggesting that maximum production would be achieved by a somewhat higher plant density than used in the longer seasoned corn belt of Ontario and the United States. Since these hybrids were mostly bred in Canada, they could be expected to tolerate low temperatures better than the Corn Belt hybrids, suggesting that they could be planted earlier without ill effect on the seedlings and perhaps with beneficial effect on the ultimate maturity of the crop.

The experiments were designed to answer practical problems and to be of immediate value to Quebec farmers. Specifically, the trials were conducted to answer these problems:

1. What is the optimum plant population with the present Quebec-adapted



An outdoor laboratory. Dr. R. Brawn, corn breeder and geneticist, goes over the results of his corn trials with a group of post-graduate students at Macdonald College.

Table 1 Summary of rate-of-seeding trials conducted in 1965 and 1966 at St. Hyacinthe, l'Assomption and Ormstown using three hybrids.

Plants per acre	Row width (inches)	Spacing in rows (inches)	% Erect	No. days to 50% tassel	Height (inches)		% moisture at harvest	Yield shelled corn at 15% moisture Bus. per acre
					Plant	Ears		
14520	36	12	97	73	78	33	44.0	82
17424	36	10	96	73	78	32	44.6	90
17424	30	12	96	73	77	33	44.4	92
19008	30	11	96	73	78	33	44.9	98
20908	30	10	96	73	78	32	45.3	98
21780	36	8	96	73	77	32	46.1	93
21780	24	12	96	73	78	31	46.1	100
23232	30	9	95	74	78	33	45.8	104
26136	30	8	95	73	78	32	46.2	104
26136	24	10	95	73	76	32	46.6	105
29870	30	7	95	73	79	33	46.6	107
32670	24	8	94	73	78	32	48.8	109
Mean			96				45.7	98

grain hybrids? Is this population higher than that reported from the Corn Belt where larger hybrids are grown?

2. Is overplanting serious, or is there a range of overplanting where yield does not decrease with increased population?

3. Using row widths easily attainable by farmers, what is the best spatial distribution within a given population?

4. Are there likely to be differences between hybrids in their productivity at high plant populations or following early planting?

5. When is the best time to plant corn in the spring to get the ripest grain together with the highest yield?

Test sites were established in the three corn growing areas of the province. The Canada Department of Agriculture supplied land on the Experimental Farm at l'Assomption. The Quebec Department of Agriculture provided land at the Institute of Agricultural Technology at St. Hyacinthe. Mr. Edwin Brown of Howick provided land one mile south of Ormstown in 1965 and one mile southwest of Howick in 1966. Identical trials were conducted at the three locations in 1965 and 1966.

Three different hybrids were in-

cluded in both the rate-of-planting and date-of-planting trials. These were DeKalb 29, Warwick 263, and Pride 5. They were selected because they are known to be different in size and rate of maturity and it was shown in both the date- and rate-of-planting trials that there was a real difference between these hybrids in their response to early planting and thick planting.

the spacing experiments

Plant density studies were conducted in three row widths: 24, 30 and 36 inches; and three spacings: 8, 10 and 12 inches within the rows in the 24- and 36-inch widths, and at six spacings: 7, 8, 9, 10, 11 and 12 inches in the 30-inch rows. This produced populations ranging from 14,560 to 32,670 plants per acre. The various populations and corresponding row widths and spacings in the rows is given in the first three columns of Table 1.

The answers to the first three questions posed above are indicated in Table 1 which is the summary of the three hybrids planted at three locations in two years. It can be seen that as the population increases the percentage moisture at harvest in the

ear also increases. Yield rises sharply with increasing number of plants per acre at the lower populations but continues to rise less rapidly with increasing plant density at the higher populations. In fact, yield continued to increase in these studies with each increase in the number of plants per acre and so there is no evidence that yield will fall with moderate overplanting.

The best population must be determined by balancing the increasing yield as population increases against a similar increase in percentage moisture at harvest. If squeezing the plant together will increase the yield but slow down the speed of maturity then the best population for Quebec conditions will clearly be a compromise between high yield and high moisture. The studies would indicate that the optimum population for southwestern Quebec would be in the range of 25,000 to 30,000 plants per acre which is considerably higher than commonly recommended in the Corn Belt.

The same population may be achieved by different combinations of row widths and within row spacings. Evidence from a number of other experimental stations indicates that the highest yields may come when

plants are the same distance apart in all directions. Spacings of this type are difficult for farmers to achieve with present machinery and so this study did not contain any such equidistant plantings. This study does confirm the general finding that the highest yield will come when the plants are more uniformly spread over the land. Three populations, 17,424, 21,780 and 26,136, were each present twice in this study (see Table 1). Within each of these the narrower row and the greatest spacing within the row yielded the most while percentage moisture in the ear was nearly constant.

This study suggests that the 24-inch row widths are superior to 30-inch at the higher populations. Where present equipment cannot be adjusted for 24-inch rows, the 30-inch rows with a plant every 7 to 9 inches would be a desirable spatial arrangement.

Only three different hybrids were used in this study and these did not all give the same response to increasing population. At the lowest population in this study they all yielded the same on the average. It is interesting to note that until about five years ago this was the standard recommended population and spacing (36 inches x 12 inches) in Quebec. When aiming for extremely high yields by planting a high population, a farmer should choose a hybrid which is known to continue to give ever higher yields as the population is increased as opposed to one which reaches a plateau of yield at a moderate population and does not increase in yield as the population is increased. A good seed company will identify such hybrids in their advertising.

Lodging, an undesirable consequence of high populations at other places, did not seem to be a factor

in the two years these studies were conducted. In some years, however, an increase in lodging may be expected with a shift to the high populations suggested by these studies. Again, a reputable seed company will only recommend hybrids for high populations which will resist lodging.

the "time to plant" experiments

The three hybrids were planted on five dates at approximately weekly intervals beginning the first week in May and ending the first week in June in both 1965 and 1966. In both years the first planting was made as soon as the soil could be properly prepared for planting at the three test locations. The three trials in each of the two years were remarkably consistent in the results they produced. In Table 2 it may be seen that the highest yields are produced by the first two dates of planting while the percentage moisture in the ear at harvest increases with each delay in planting.

There was no indication in this study of significant interaction between the hybrids and the dates of planting. That is, an early hybrid such as DeKalb 29 will mature earlier than a later hybrid such as Pride 5 if they are planted at the same time no matter whether the planting was early or late. None of the three hybrids used seemed to have special adaptation to either early or late planting. But newer hybrids may be specially bred for early planting. Look for these in the advertising of good seed companies.

These trials have shown that rarely will the three recommended hybrids,

DeKalb 29, Warwick 263 and Pride 5, reach full maturity even when planted early in May. Corn will continue to increase in weight — and hence yield — until the percentage moisture in the ear drops below about 38 per cent. These trials were harvested shortly after killing frost in both years and it will be seen in Table 2 that even the earliest planted corn did not average out over the three locations in two years at lower than 43% moisture. Hence it would seem that earlier hybrids than those used in these experiments should be planted — also as early as possible in May — if highest yields of sound, mature grain corn are to be grown in Quebec.

planting recommendations for Quebec

On the basis of the experiments just described and by observing many farm operations in southwestern Quebec, the Agronomy Department of Macdonald College makes the following recommendations:

Corn for grain should be planted as early in May as the soil can safely be worked. Late frosts will not likely kill the corn and even though frosted, will be further advanced in maturity and higher in yield than late planted corn.

The narrowest row width attainable with present planting, cultivating, spraying and harvesting equipment is best. Space plants within the row so as to have in the high twenty thousands of plants per acre at harvest for highest yields. Where short season is a problem a population of not over 20,000 plants per acre should be used so that the corn may mature rapidly.

Table 2 Summary of date-to-seeding trials conducted in 1965 and 1966 at St. Hyacinthe, l'Assomption and Ormstown/Howick using three hybrids.

<i>Planting times</i>	<i>Moisture in ear at harvest</i>	<i>Yield shelled corn at 15 % moisture</i>
	<i>%</i>	<i>(bus./acre)</i>
<i>1st week in May</i>	43.5	96
<i>2nd week in May</i>	44.9	96
<i>3rd week in May</i>	48.2	90
<i>4th week in May</i>	56.2	80
<i>1st week in June</i>	60.3	76

what's new in cereal crop varieties?

A description of the varieties currently recommended for Quebec is given in the Recommendations of the Quebec Seed Board, and in the March, 1967, issue of the Macdonald Farm Journal. However, during the past two years, a number of new varieties have been licensed and released for production in Canada. Are these likely to be useful in Quebec? In this article, Dr. H.R. Klinck reviews their present status.*

oats

Kelsey and *Harmon* are varieties developed in a cooperative program among the Research Stations at Ottawa, Winnipeg and Indian Head. Both are somewhat similar to *Rodney* in appearance. (*Rodney* is no longer recommended because of its comparatively low yields in tests.) *Kelsey* has been tested in Quebec for three years and has been found to be slightly lower yielding than *Garry*, along with a weaker straw. It is little earlier maturing than *Garry* and has a lower hull content. Rust resistance is similar to that of *Garry*. On the basis of present data, *Kelsey* appears to have less potential as a variety for Quebec than does the recommended variety *Garry*.

In many respects *Harmon* has performed in a manner similar to *Kelsey*, but is later maturing. In Quebec it has no advantage over *Garry*.

Sioux was developed at Winnipeg and is best adapted to the western part of the Prairies. Tested at one location in Quebec in 1966, the performance of *Sioux* was similar to that of *Garry* as regards straw

strength and yield. It is earlier maturing than *Garry* and has better grain quality. Further testing in Quebec will be necessary before a definite recommendation can be made.

Grizzly, a variety from the University of Alberta, has been tested for one year at one location in Quebec. Its weak straw and susceptibility to diseases indicate that it is a variety unlikely to find a place in Quebec.

Fraser comes from Agassiz, B.C., and has been tested only once in Quebec. It is a medium late type with good lodging resistance and indications are that it has fair yielding ability and rust resistance. Further testing will be necessary before reliable recommendations can be made.

Stormont, from Ontario, is noted mainly for its lodging resistance. Having been tested throughout Quebec for two years it appears to lack high yielding ability. As a special purpose, early maturing variety on farms where severe lodging is a constant problem, this may have some merit. It is not likely to be generally recommended, however.

Cabot was developed in the Atlantic provinces. While it is fairly productive, its weak straw will likely keep it off the Quebec recommended list.

* Prof. Harold Klinck is in charge of the cereal crops breeding and research program of the Department of Agronomy, Macdonald College. He is President of the Canadian Seed Growers' Association, and Past President of the Canadian Society of Agronomy.

(please turn to page 19,
(see WHAT'S NEW—)



Thousands of hours of painstaking work over many years go into the development of every new variety. Here, Dr. H. R. Klinck and the technical staff are at work in the seed selection laboratory. Dorval, Roxton and Shefford Oats, and Champlain barley are among the newer varieties bred at Macdonald College.

THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE BY
THE QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

corn increase

Speaking at the distribution of awards to the leading competitors in the 1967 provincial grain corn contest, Mr. Nazaire Parent, head of the field crops branch of the Department of Agriculture and Colonization, cited figures showing the progress made with this crop in Quebec.

"This year, at my request and for the first time" he said, "the Bureau of Statistics of the Department of Industry and Commerce has mentioned grain corn production. The figures published in its report show the area devoted to this crop in Quebec as 20,000 acres with a total yield of 1.5 million bushels.

"In the 1967 grain-corn growing contest, there were 286 competitors in 19 different counties. They sowed a total of 5,797 acres to this crop, as compared with the 2,894 sowed by the 202 competitors in 1966.

"The 35 finalists in the 1967 contest were situated in 12 different counties and the top ten were located

in six counties. It scarcely needs to be said that St-Hyacinthe County had the lion's share of the 35 finalists, namely 9; but Deux-Montagnes and Bagot were close behind with six and five.

"The table shows the progress made with the crop in the three years during which the grain corn contest has been held. It reveals a strongly rising trend which is very encouraging from every point of view.

"Besides showing how far we have come, these figures also indicate the almost unlimited possibilities for intensive and profitable production of grain corn. In view of these facts, I have the distinct impression that many farmers in the area would find that it would pay them from several standpoints to devote themselves exclusively to growing grain corn. By doing so, they themselves would gain and, at the same time, leave the field freer for dairy production by farmers in less climatically favoured regions. This seems to us to be a very logical course. It is up to those concerned to give it the close attention it deserves and make a decision."

Compiled by
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Agriculture and Colonization

Photographs by
Office du Film du Québec

RESULTS OF GRAIN CORN CONTESTS IN QUEBEC

	1965	1966	1967
Number of competitors	218	202	286
Number of counties	18	14	19
Total acreage	3,875	2,894	5,797
Average yield of top ten contestants in bushels per acre	88.3	126.5	136.3
Per cent moisture in grain of top ten contestants	44.2	37.9	37.5
Yield of the winning contestant in each year in bushels per acre	127	138	153

Mr. & Mrs. Louis Swennen in a promising stand of corn on their farm at Henryville in Iberville County.



new director

Jean-Marc Girard, a specialist in forage crops with the CDA's research station at La Pocatière, Que., has been appointed director of the station.

Mr. Girard, a native of Quebec City, holds B.A. and B.Sc. (agriculture), degrees from Laval University and an M.S.A. degree from the University of Toronto. His career with CDA began in 1955 as a research officer with the experimental farm at Normandin, Que., and in 1964 he joined the research staff at La Pocatière. His broad experience in forage crop research was obtained partly at the research station in Saskatoon where he worked for a 12-month period in 1960-61.

Mr. Girard is well known in agricultural circles. Besides being a member of many professional associations, he has served as chairman of the hay and pasture committee of the Quebec Seed Board and in 1965-66 he was on loan for a year to the Bureau D'Aménagement de l'Est du Québec as consultant.

The new director succeeds Dr. J. C. Perrault who will head the research group that the CDA is developing at Laval University in Quebec City. (From "This Month with CDA")

new flax variety

Linott, a new flax variety, has been developed and licensed by the Canada Department of Agriculture. It will be multiplied in Quebec this year.

Bred at the Ottawa Research Station, the new variety can be adapted widely, but is primarily recommended for the province of Quebec. Some 30,000 acres in the province are seeded annually to flax, growers relying mainly on Marine and Norland varieties. Linott is intended to replace Marine because it matures, on the average, three days earlier, and also produces nine per cent more oil per acre. Also, it is resistant to wilt and all North American races of rust.

Since stocks of Linott seed are limited, distribution this year will be by the Quebec Provincial Seed Stock Committee, and it will contact the growers it selects to multiply the seed this year.

Extensive tests of Linott were carried out by the Quebec Seed Board with the co-operation of the staff of the Faculty of Agriculture, Laval University.

(From "Canada Agriculture")



One of the six daughters of Mr. Jean-Paul Robert in her father's sugar-beet field at St-Césaire in Rouville County.

sugar beets

Yields of sugar beets in variety trials carried out in 1967 at Deschambault (Portneuf County), Batiscan (Champlain) and Val Alain (Lotbinière) ranged from 11 to 14 tons of roots to the acre (see table). These results are encouraging considering the late seeding (May 26th) and excessive rainfall — about twice the normal amount for these three counties situated just west and southwest of Quebec City. At Deschambault, the soil drains slowly so that the field was partly flooded even in midsummer; hence the low yield. In general, however, yields were not far below those usually obtained in St-Hyacinthe County (15.5 tons per acre for the period 1961-66).

The yield of sugar was very high — around 16 per cent — and for some of the plots at Val Alain it

reached 17 per cent. Although some refineries still pay growers by the weight of roots delivered, it is the total amount of sugar in the beets that counts.

Varieties cannot be evaluated or compared fairly by their performance in only one season but, making allowance for the wet weather in 1967, some indications can be got from these trials. The variety Polykuhn seems to have some tolerance for poorly drained soils judging by the satisfactory yields it produced at Deschambault and Val Alain in spite of the excessive rainfall.

The need for further testing before recommendations are made about these varieties is shown by the fact that Polykuhn gave a much lower yield of sugar at Batiscan than at the other two stations. It is proposed to continue these trials in 1968 on approximately one-acre plots at a larger number of stations.

YIELDS OF ROOTS AND SUGAR FROM THREE VARIETIES OF SUGAR BEETS AT THREE TRIAL GROUNDS IN 1967

Testing station	Variety	Acreage	Yield of roots tons/acre	Yield of sugar Percentage	tons/acre
Deschambault (Portneuf)	Monogerm	0.34	10.80	16.1	1.75
	Cercopoly	0.30	11.80	16.4	1.93
	Polykuhn	0.30	13.11	15.6	2.04
Batiscan (Champlain)	Monogerm	0.33	13.53	16.7	2.26
	Cercopoly	0.41	13.62	17.0	2.31
	Polykuhn	0.33	13.92	13.6	1.89
Val Alain (Lotbinière)	Monogerm	0.002	14.30	16.1	2.30
	Cercopoly	0.002	14.90	17.3	2.58
	Polykuhn	0.002	21.70	17.3	3.75

the Quebec crop insurance plan

Quebec farmers can now insure crops under the new provincial crop insurance plan, details of which have been published in a booklet entitled "Quebec Crop Insurance" obtainable from the Quebec Crop Insurance Board, Quebec 4, P.Q.

The contents of the booklet are reprinted here.

The Québec Crop Insurance Act, which the Minister of Agriculture has charge of carrying out, was unanimously adopted by the Legislative Assembly on June 29th, 1967. The goal of crop insurance is to help farmers protect their income against crop losses caused by bad weather conditions.

Due to the importance and newness of this agricultural act, which is adapted to the particular needs of the Québec, farmer the Board responsible for the administration of the Québec Crop Insurance Act is providing Québec farmers with this information in order that they may become familiar with crop insurance and to invite them to participate in the plan.

It is important to bear in mind that the greatest possible participation on the part of our farmers will guarantee the success of this new and very beneficial insurance plan.

Further information may be obtained by getting in touch with the Québec Crop Insurance Board.

advantages — characteristics what is crop insurance?

It is a form of modern and efficient protection by which a farmer receives an indemnity if, due to certain bad weather conditions, his insured crops do not yield the amount for which they are insured.

why should the farmer insure his crops?

To be protected against a serious money loss in case of a very low yield of his crops.

what are the main advantages of crop insurance?

Crop insurance

- protects the money and the time invested by a farmer in the production of his crops
- serves as a guarantee for the financing of his crops
- prevents debt following a bad crop
- encourages the use of better agricultural techniques
- encourages better farm management methods
- makes farming more stable and more profitable.

what are the special features of Québec Crop Insurance?

There are two:

1) It is an optional plan.

Even if it is to his advantage to become insured, a farmer is at liberty to insure his crops or not.

2) It is a contributory plan.

Insurance is not free but the insured farmer pays only 50% of the total premium. The Government pays the other 50%.
EXAMPLE: Suppose that a premium for forage and grain crops in region X costs \$80. The insured farmer will pay only \$40; the government will contribute the other \$40.

if a farmer does not insure his crops, will he be paid in case of loss?

No. All the money collected by the Board as premiums from the insured farmers and the government may only be used to pay off the losses of those who are insured.

who may become insured?

Any owner, lessee or occupant of a farm who conforms to the terms of the Act and the regulations of the Board.

is there an annual deadline for presenting the official application form to the Board?

Yes. The deadline is determined by regulations according to the kind of crop to be insured and the normal sowing period in the various agricultural zones of Québec. The farmer will have enough time before sowing or the start of growth to submit his application to the Board.

insurance crops and risks covered which crops does the Board insure?

The Board protects all forage and grain crops and also certain commercial crops.

The Board does not insure:

- a) mixed farming crops on land with an area of less than ten acres;
- b) farm crops cultivated on an occasional basis;

c) crops that are not suitable to the region because of the nature of soil, climatic or other technical conditions.

what is meant by a mixed farming crop?

It is a forage or grain crop intended mainly for the feeding of the farm animals.

Pastures under cultivation are included in this plan; insurance protects them against certain risks and under certain conditions.

what is meant by a commercial crop?

Examples of commercial crops are: tobacco, apples, vegetables, sugar-beets, potatoes and even mixed farming crops which are cultivated mainly for sale.

against what risks does the Board insure crops?

The Board insures crops against the following risks:

- 1) snow
- 2) hail
- 3) hurricane
- 4) excessive rain
- 5) drought
- 6) frost
- 7) plant diseases and insects against which there are no effective means of protection
- 8) flood
- 9) damage to the roots of forage plants caused by frost or ice in the soil during the winter months.

In addition certain commercial crops are also protected against excessive wind or humidity.

which part of his mixed farming crops must a farmer insure?

A farmer must insure the total extent of his mixed farming crops — in other words, all of his forage and grain crops.

which part of his commercial crops must a farmer insure?

A farmer must insure the total extent of each of the commercial crops he wants to protect.

fees rates and contributions

who contributes to the insurance fund of the Board?

The Board's insurance fund comes from two sources:

- 1) Premiums paid by those who are insured;
- 2) contributions made by the government.

what exactly is the Board's insurance fund for?

The Board's insurance fund, which is made up of the premiums paid by those who are insured as well as government contributions, is only to be used to pay the indemnities and compensations to which insured farmers are entitled.

how are the rates established?

The rates are fixed annually by the Board in a fair way for each crop category, according to the different zones and regions of the province. The Board fixes rates only after consulting various specialists and taking into account different statistics, based on actuarial analyses and calculations.

what other contributions does the Québec government make to the crop insurance plan?

Besides paying 50% of the premiums, the government pays all administrative costs of the Board.

These costs are not considered in calculating the premium rates.

comparing policies offered by the United States and other Canadian provinces, what part of the premium is paid by those who are insured in Québec?

At the present time, (1967), for each premium dollar going toward

crop insurance, the insured farmers pays:

United States:	\$1.00 or 100%
British Columbia:	\$0.75 or 75%
Saskatchewan:	\$0.75 or 75%
Manitoba and Prince Edward Island:	\$0.75 or 75%
Ontario:	\$0.70 or 70%
Québec:	\$0.50 or 50%

when must the farmer make his payment?

The whole payment (50% of the total premium) must accompany the application which the farmer submits to the Québec Crop Insurance Board.

why must the payment be made in full at the time of application?

- Primarily to prevent slowness and disagreeable complications;
- and to make possible the issuing of the insurance policy.

compensations

what compensations can a farmer expect for mixed farming crops?

The Québec Crop Insurance Act was planned to answer the specific need of the Québec farmer. It included three forms of compensation which, grouped together in the same plan, are firsts in the entire world:

- 1) an indemnity for reduced crop production;
- 2) an indemnity for loss of pasture;
- 3) an indemnity for replacement value.

example

Take a farm specializing in forage and grain crops with 50 acres in hay, 25 acres in grain, 40 acres of cultivated pasture land and 30 milking cows.

The farmer normally harvests 100 tons of hay.

Because of bad winter conditions, his hay crop is reduced by 50% and he is able to harvest only 50 tons instead of 100 tons of hay. What would his compensation be if we suppose the unit price of hay, fixed by the Board, is \$16 a ton?

In this case, the Board assures 80% of the production, which would be 80 tons.

Insured crop:	80 tons
Harvest obtained:	50 tons
Loss:	30 tons

Compensation paid by the Board:
1) First, the farmer is entitled

to a basic compensation which would pay him for 30 tons of hay at the unit price of \$16. \$480.

2) The insured farmer is then entitled to a second indemnity for loss of the use of his pasture-land, which is $\frac{1}{3}$ of the basic indemnity. \$160.

3) Then, because of his cattle, the farmer is entitled to a third indemnity for replacement value. He will be able to buy 30 tons of hay on the market for the feeding of his cows. Let us suppose that, at the time of purchase, the cost of replacement hay (for hay or cereals with an equivalent food value) is \$26 a ton, the Board will pay him the difference between \$26 and the \$16 already received, that is: \$10 a ton for 30 tons \$300.

Total compensation for a 50% hay crop loss \$940.

what compensation can a farmer expect for commercial crops?

Producers of commercial crops can expect a repayment which goes as high as 80%:

- a) of the average yield of his insured crop
- b) of the average yield of a group of crops of the same nature in the same region.

The percentage of the guaranty will be established by the Board on the basis of the actual total cost for production of each commercial crop, either on an individual basis or on a regional basis

example

Take an orchard with an average yield of 300 bushels of apples to the acre. Suppose that the Board insures 70% of the production, which is 210 bushels to the acre.

Insured crop: 210 bushels to the acre
Harvest

obtained: 150 bushels to the acre
Loss: 60 bushels to the acre

compensation

If the unit-price per bushel is \$1.94, the insured farmer would receive:

60 b. x \$1.94

which is \$116.40 for each acre.

cost

The cost of crop insurance is based on many factors, such as the yield,

the area cultivated, the type of crop insured and the rates.

Rates, based on actuarial calculations, are established every year by the Board and are published every year by December 15th at the latest.

conclusion

The Crop Insurance act is a forward-looking piece of legislation, generous and complete in its coverage. It is destined to give Québec farmers priceless security and service. It is in the interest of all our farmers to take advantage of this new insurance plan. Their collaboration will contribute to the progress of our agricultural population.

crop insurance board

The Minister of Agriculture and Colonization, Mr. Clément Vincent, has announced the formation of an advisory committee to make recommendations to the Quebec Crop Insurance Board regarding the application of the Crop Insurance Act, as provided for in that act.

The committee will be under the chairmanship of Mr. Jean-Paul Coriveau of Saint-Thomas, Joliette, who is president of the flue-cured tobacco producers' board. The duties of secretary will be carried out by Mr. Jean-Marc Ducharme, who is also secretary of the Crop Insurance Board.

The other members of the advisory committee are as follows:

Mr. Jean-Paul Diné of Chénéville, Papineau county, a producer of manufacturing milk who was president of the Saint-André-Avelin agricultural cooperative society for many years before becoming president of the Papineau county cooperative which resulted from the amalgamation of all farm cooperatives in the county. He is also director of the Coopérative Fédérée for his district;

Mr. Louis-Philippe Rioux of Trois-Pistoles, Rivière-du-Loup, also a manufacturing-milk producer, vice-president of the Rimouski branch of the U.C.C. and director of the Lower St. Lawrence cooperative;

Mr. Paul-André Tardif of Saint-Nicolas in the county of Lévis, vice-president of the Eastern Quebec branch of the U.C.C. and president of the Quebec district fluid milk producers' syndicate;

Mr. Cyril Dahms of Huntingdon, president of the Quebec Farmers' Association;

Mr. Rosaire Tanguay of Saint-Pie in the county of Bagot, member of the U.C.C., sugar-beet grower and market-gardener and president of the Bagot county agricultural society;

Mr. Robert Boulé of Palmarolle Abitibi-West, president of the North-west Quebec fluid milk producers' syndicate;

Mr. Marcel Bergeron of Saint-Prime, Roberval county, son of the Mr. Johnny Bergeron who was the head of Quebec's Farming Family of the year in 1966. He operates a very large farm with the help of his four brothers;

Mr. Paul Mailloux, director of the General Insurance section of the Department of Finance and inspector of insurance companies for the Insurance division;

Mr. Léon Sylvestre of the Department of Agriculture and Colonization, assistant to assistant Deputy Minister Mr. Lucien Bissonnette.

ARC's contribution

"The Agricultural Research Council makes a very big contribution to the training of staff for agricultural education in Quebec", says Dr. Bertrand Forest, chairman of the Council and director of the Research Service in the Department of Agriculture and Colonization. The Quebec Agricultural Research Council, which is responsible for coordinating research in the field of agriculture, is composed of representatives of the Department of Agriculture and Colonization, the federal Department of Agriculture, agricultural faculties of universities, and agricultural organizations.

Of the present 164 ex-holders of scholarships granted by the Research Council 48, with a master's or doctor's degree, are now on the teaching staffs of Quebec universities — as follows: Laval University faculty of agriculture 21; other faculties at Laval 9; University of Montreal 9; the Veterinary College 7; McGill University 2.

The government of Quebec, which is naturally the first to benefit from the services of those whom the Agricultural Research Council has helped to obtain postgraduate degrees, now has 54 of them in its employment. Most of these (46) are in various services of the Department of Agriculture and Colonization, 16 being on the teaching staff of the Institutes of Agricultural Technology. The Canadian government has engaged 32, most of whom are attached to research stations of the Canada Department of Agriculture in Quebec.

Order of Scholastic Merit awarded

G. A. Rockwell, Assistant Registrar, Macdonald College, has been named by the Minister of Education as the recipient of the Third Degree of the Order of Scholastic Merit, the province's highest honour for Protestant educators. The award will be presented March 29th, in Montreal, during the annual convention of the Provincial Association of Protestant Teachers.

Mr. Rockwell began his career as a teacher in New Brunswick. After 12 years as teacher and principal, he moved in 1941 to Sherbrooke where he remained for 16 years as head of the science department of Sherbrooke High School. Joining the Department of Education in 1957, he became, successively, Inspector of Secondary Schools, Secretary of the Protestant Central Board of Examiners, and Associate Chief of Teacher Certification, and, in 1967, was appointed to the administrative staff of Macdonald College. He attended the New Brunswick Teachers' College and holds a B.A. degree from the University of New Brunswick as well as the M.Ed. degree from Bishop's University.

On the invitation of the British Council of Education, in 1964, Mr. Rockwell attended a seminar on the English education system. The course was held in Farnham Castle, Farnham, England, and included educators from many parts of the world.

staff appointment

Dr. Blackwood, Chairman of the Department of Microbiology announces the appointment of Dr. Jordan Ingram to the staff of the Department. Dr. Ingram is a 1959 graduate of Macdonald College and has been pursuing further studies at Michigan State University. Most recently he has been working with the Cell Biology Research Institute of the Canada Department of Agriculture, Ottawa. His research interests at Macdonald will be concerned with a study of a yeast enzyme at the molecular level.

education week

The first week in March has become traditionally designated as Education week in Canada. In the case of the Macdonald College Extension Service, a special focus on continuing education gave the opportunity for a review of the state of education in Quebec.

Dr. Fernand Jolicoeur, Director General of Adult Education, Quebec Department of Education presented a review of the accomplishments of his two years in Provincial adult education.

Other programs presented during the week included a public showing of "This Is Marshall McLuhan — The Medium Is The Message," and an evening program dealing with family relationships.

DHAS field day

The Dairy Herd Analysis Service at Macdonald College sponsored a field day on February 29th, for all dairymen enrolled in this program. This field day provided everyone an opportunity to visit the college, and to learn more about this relatively new program.

Interest was high when Norman Campbell, Chief Supervisor of this program explained how the recently released 12 month average and cow rating index could be profitably used by the farmer.

There were many questions during the question period. Everyone present had an opportunity to visit the D.H.A.S. facilities and see the monthly reports being processed.

An important part in any dairy farmers visit to Macdonald College is seeing the dairy herd. During the afternoon the group moved to the dairy barn. Rudi Dallenbach, Director of the Farm explained to the visitors how the college herd is managed. A demonstration of proper milking techniques was of interest to everyone.

This large group of farmers apparently enjoyed their brief but fact filled visit to Macdonald College. There will be more field days such as these. Now that there are over 500 herds on this program there will be many others interested in seeing D.H.A.S. in action.



Mr. A. D. D. McEwen, branch manager, J. I. Case Co., Montreal, is shown above (left) presenting a J. I. Case Co. cheque for \$500 to Professor R. S. Broughton, chairman of the agricultural engineering department, Macdonald College, of McGill University, for the newly announced Case scholarship in agricultural engineering.

The scholarship will be awarded to a male student completing the third year in the department of agricultural engineering and proceeding into the fourth year.

Made available by the J. I. Case Co. as a centennial gesture, the \$500 scholarship will be awarded on the basis of good academic standing and an interest in the agricultural machinery industry. Preference will be given to financial need.

Women's Institutes



Norma Holmes
Quebec Women's Institute

ABITIBI: - *Matagami* — Roll Call — decorated cupcakes. A Penny Sale held and it proved to be very successful, with twenty-one members present. A demonstration on decorating a cake — this cake was raffled after the meeting. Old Christmas cards collected by members and sent to home for retarded children.

CHATEAUGUAY-HUNTINGDON:

Aubrey-Riverfield — Mrs. Johansson read a paper on Manitoba. Robert Burns poem "A Man's a Man for A' That" was read by Mrs. J. Hamilton. Notes of gratitude from Christmas Cheer recipients were read. *Dewittville* — Discussion of the proposed amendments to Criminal Code: Abortion and Contraceptives. A quiz held on General Knowledge. Each member brought a gift for retarded child to be sent to the Gay Valley School for Retarded Children in Huntingdon. A committee was named to assist the Dewittville Youth Association with the Community Skating Rink management. Christmas Carols were enjoyed. *Franklin Centre* — A social evening was held for the families and friends of the W.I. members. Cards and croquignole were played and prizes given. Hot supper opened the evening of fun. *Hemmingford* — 34 Christmas Cheer boxes were packed and delivered. A Christmas parcel was sent to an adopted patient in Douglas Memorial Hospital, also other boxes delivered there. \$126.06 was collected for the UNICEF Fund. Mrs. R. Petch gave points of interest on Handbook. *Huntingdon* — Silent Auction was held. Recipes were given for using cheaper cuts of meats. Roll Call — serving hints given.

COMPTON: — *East Clifton* — The principal and another teacher from Sawyerville High School were guest speakers, their topic was Education. An exchange of gifts among the members. Donation of money given to the Sunday School for Christmas tree and treats. *East Angus* — Roll Call was donations for Christmas Cheer boxes. A program consisting of carol singing, a raffle and exchange of gifts. *Cookshire* — Home Economics Convenor gave old-fashioned Tips on Health. Publicity Convenor spoke of the integration of the Indians in Ontario and the work of the Toronto Indian Center in disposing of Indian handicrafts. The members are knitting squares to make a quilt for an Old Peoples Home.

JACQUES CARTIER: — *Ste-Anne* — Film "Helicopter-Canada". Donation of money given to the Children's Library, Ste-Anne.

MEGANTIC — *Inverness* — Answered the roll call by making a useable article from a used container. Several were brought in and sold. Contest held making words from a given word in a stated length of time. *Kinnear's Mills* — Answered the roll call by telling when, where, and by whom you were married. Cards sent for Christmas remembrance to friends and shut-ins. Assisted with a party for the Children.

MISSISQUOI — *Cowansville* — A discussion on the importance of continued individual education for adults brought out many interesting facts and ideas. *Dunham* — brought gifts for hospitalized children; gave a donation to the Home for Retarded Children; played Santa Claus game and held a contest on Puzzling Places; congratulated Mrs. Farnam on being a member of the W.I. for thirty years. *Fordyce* — Each member described what she liked best at EXPO. One gave a talk on the methods and principle of the Trade School at Waterloo, Quebec. Closed the meeting with singing of Auld Lang Syne. *Stanbridge East* — Each member represented a song, after which that song was played and a verse of it sung.

PAPINEAU: — *Lochaber* — Mr. and Mrs. Johnson received \$10.00 from the Government for the beautification of their home in 1967. Mrs. McNamara was given a brooch in recognition of her work done in making quilts out of coats and giving them to the Unitarian Service. Plants were given to three Senior members and exchange of gifts was held.

PONTIAC: — *Fort Coulonge* — Roll call — a casserole recipe and Household Hints. Wall hangings for a child's room made of felt and coat hangers were displayed. Three readings pertaining to Home Economics were given. *Shawville* — Roll Call brought in suggestions for raising funds. Plans completed for a card party and a bake sale. The Bridge Marathon continues averaging six tables per week and a dollar per table. Held a white elephant sale. Mr. McMillan (Agronomist) addressed the meeting using the Progress of the Farmer as his topic — also on the pros and cons of Milk. Have taken over the responsibility of the Hospital Cart for a month. The forementioned Bridge Marathon has been the main source of funds in this Branch for several years. *Bristol* — An interesting paper given by a mem-

ber entitled "Happy Living in your Kitchen". A paper given on "How to live to be 100"; also one entitled "Our Centennial is Over". Plans made for a work-box held at the meetings — members donating what they wish. Christmas gifts furnished for a patient in an Old Memorial Home. *Clarendon* — Tickets were sold on one of the dolls from the Fair Exhibit, ninety dollars was realized from this raffle and the money sent to the C.N.I.B. Money was collected from the members to buy treats and favors for Ade Home. Many games and contests were enjoyed as well as the exchange of Christmas gifts. *QUEBEC*: — *Valcartier* — The Verdun patients were remembered with Christmas gifts, also a neighbour who has been ill in hospital for a long period of time. A sum of \$100.00 was voted to be given to the Dunn School for Retarded Children. The Canadian Constitution to be read with fifteen minute periods of discussion to follow. Cotton to be brought in for Cancer Clinic. A fifteen minute period of quizzes, jokes and games followed by exchange of Christmas gifts and Carol singing.

RICHMOND: — *Cleveland* — Roll call was answered by telling of a famous person who had overcome a handicap. Members are working on an applique quilt. Donation of \$25.00 given to Welfare Fund at St. Francis High School. *Gore* — Roll call — name an old-fashioned remedy; a gift was sent to the husband of the President — he being a patient in a hospital. Contest on making words from "Welfare and Health". An article given on "Progress against Cancer". A member has written an original play for County competition. *Spooner Pond* — Roll call — bring a written suggestion for the new program. Heard report on Christmas cheer boxes; sent gifts to two boys at Dixville Home. The Quebec Mosaic was on display and orders were taken for the book. Contest "Search for the Cities" won by Mrs. G. Fortier who also won the regular monthly drawing prize. Home Economic Convenor sold elastic, braid and lace.

ROUYN-NORANDA — *Rouyn* — Several visits to the sick were made during the month. Members donated blood following an urgent request for donors by the Blood Clinic Supervisor. Education is a topic often discussed at the meetings. *Noranda* — A joint meeting in the form of a Christmas Party of the Noranda and Rouyn Branches was held, the program being organized by the Rouyn Convenor. Exchange of gifts. A delicious lunch was served.

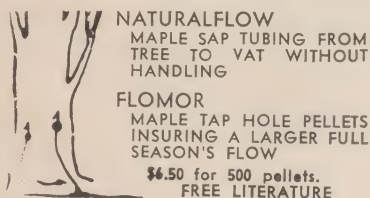
SHEFFORD: — *Granby Hill* — In October, Mrs. Ossington reported on her visit to the Indians in the North and on the County Meeting held in Waterloo. Donations were made to the Salvation Army appeal also to the Granby High School. In November — a contest was held on building words. The annual supper for members and their families was held at the home of Mrs. John Sanborn with a large attendance. Cards were enjoyed after the supper. In Dec. a contest was held on jumbled letters. A Centennial Party was very successful with approximately 150 invited guests enjoying cards and dancing. *Granby West* — Health and Welfare Convenor reported that people in Canada are among the healthiest in the world. Home Economic Convenor read an article on the best way to buy shoes. Agriculture Convenor brought it to our attention that 27 Korean students are being trained in Agriculture in Ontario. Many members made cancer dressings. Gifts were sent to one of the High Schools as well as to some of the more elderly and shut-ins for Christmas Cheer. *Waterloo* — *Warden* — Christmas meeting was held at the home of Mrs. Mairs. There were Christmas readings, carolling and exchange of gifts. Collection taken to take care of birthday cards.

SHERBROOKE: — *Ascot* — Two readings were given "Christmas" and "Bells". Decorated Christmas Cheer baskets filled for shut-ins. Oranges sent to the Grace Christian Home. Money voted for Hot Lunches Program at Lennoxville High School. Exchange of gifts. *Belvedere* — Roll Call — bring a dozen cookies for Grace Christian Home. This meeting was held in the form of a Christmas Party with carol singing and exchange of gifts among the members — with children of the members being remembered. The President, secretary and treasurer were presented with gifts of cups and saucers with the Centennial Rose design. The Sunshine Convenor was given a pin as a token of appreciation for her many years of faithful work in that department. A delectable chicken patty luncheon was served by the hostesses. Money was voted for the Q.W.I. Service Fund (\$1.00 per member) and for a donation to the Hot Lunch fund at Lennoxville High School and also to the school for help of retarded children for Christmas Cheer. The branch catered to a banquet recently. *Brompton Road* — roll call — bring a toy for a child in Maplemount Home in Cookshire. Exchange of Christmas gifts between the members

and guests. Carols were sung. Members worked at the Cancer Clinic; money was voted for a crate of oranges for the Wales Home in Richmond. Gifts were brought in for four boys stationed in Germany and Canada, and gifts for two shut-in members. Plans completed for the Christmas Tree program for the community children. *Lennoxville* — roll call — a tradition or legend of Christmas. Resolutions sent to the Government by F.W.I.C. and the legislation re: abortion and legalization of sale of contraceptive pills were discussed at length and a motion was made that our branch goes on record as being in favor of the resolutions. An article was read on Burns and how to take care of them, also on danger of fire with Christmas trees. Exchange of gifts with a prize for the most artistically wrapped gift. We pledged to help the fund for the Northern W.I. activities by paying \$10.00 per year for three years. \$10.00 voted for the use of the Anglican Church Hall for our Tea. Christmas Cheer boxes to be sent to the sick and shut-ins. 88 squares for afghan were sent. *Milby* — Gifts were exchanged by the members. A donation of \$5.00 was given to the Lennoxville School for their lunch program. A card signed by the members will be sent to Mrs. William Evans who will be absent for the winter months. New tablecloths are purchased for the Club Room, these will also be used at Receptions, etc.

STANSTEAD: — *Ayers Cliff* — Christmas Cheer was sent to the sick and shut-ins at Christmas. Food Baskets have been sent to a needy family and hot lunches at school provided by a donation for the same family. At the Jan. meeting Miss Nora McCardell, Clinical Psychologist supervisor with the regional School Board was guest speaker and gave a very interesting talk on her work. Several guests were present. *Beebe* — Christmas supper party was held at the home of the President; sang carols, played games, and had a square dance. There was an exchange of gifts. Each member brought a gift for a child at the Dixville Home. Mrs. Hayward displayed Christmas table decorations and window decorations made by the children at the Beebe Elementary School. A quiz game on cake was held and plans completed for Christmas Cheer boxes to be sent to shut-ins. *Stanstead North* — Roll Call — each member paid fifty cents to go toward Christmas Cheer. An exchange of Christmas gifts was held and a program of Christmas readings was heard. Jan. meeting — roll call was your New Years resolution. Food

baskets, plants and cards were sent to needy and shut-ins also a year's subscription to Stanstead Journal. Sponsoring school lunch tickets for a needy child for a period of time. Members gave readings both humorous and otherwise — those not giving a reading were fined ten cents
VAUDREUIL: — *Harwood* — This meeting under the direction of Mrs. P. Chicoine, Education Convenor, took the form of a round table discussion. The interest of the group was shown by the lively manner in which the questions regarding present day schools and education in general were brought up and discussed. Tried the singing of the new bi-lingual version of 'O Canada' and found it went very well.



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PURE CANE
MOLASSES

High in Energy
Rich in Minerals
Good Source of
B-Vitamins

Stock Thrives On It!



THANK YOU!

I would like to thank the many members and convenors from the various branches and counties for the lovely Christmas greetings and the many expressions of encouragement expressed.

Christmas stockings

A letter from Mrs. Lewis, Chairman of the 'Stocking Project' for Save the Children Fund:

Dear Members of the Quebec Women's Institute:

You had a most successful year and I want to thank you sincerely for your wonderful effort. You sent in 1,118 — each and every one was lovely

An unfortunate thing happened. A nice box of 14 stockings failed to arrive and it was most distressing — for the ladies who had taken so much time and effort and for us as I had hoped to get 1500. I ended up with 1477. I do hope that group will not be discouraged and try again.

Please accept my congratulations and to you all a happy New Year.

Looking forward to hearing from you later this year, I am

Sincerely yours,

Dorothea Lewis

Mrs. Lewis phoned later that she should have mentioned that all stockings should be closed at the top, so that articles do not fall out in handling.

my patch of sky

*(Taken from the Australian
 Country Woman)*

*My patch of sky is always blue,
 Ethereal, consistent, true,
 If cobwebbed o'er with windswept
 clouds
 Or swiftly flecked by feathered
 crowds.*

*With sunset brushed on western wall,
 If blanketed in soft, grey pall —*

*Beyond the heron's leisured flight,
 Behind the curtain of the night,
 Still further than the sunset's glow,
 Above the rainbow's curving flow
 Though man soars high on silver wing
 The blue still arches everything.
 In puddles mirrored after rain*

*When storms have raged and passed
 again,
 My moon, my stars shine out for me
 In steadfast, sweet serenity.
 My life, my work, my days go by
 Beneath my sapphire patch of sky.*

Rita Aston (Quakers Hill)

Waterloo-Warden 40th Anniversary.



From left to right: Mrs. D. Martin, Mrs. L. Maynes, Mrs. P. Jones, Sandra Bowker, Mrs. C. Bowker, Mrs. L. Durrell, Mrs. Sherwood, Miss Alice Ashton, Mrs. M. Sicard, Mrs. M. Hilliker, Mrs. C. Mallette, Mrs. C. Mairs, Mrs. W. Ramsay, Mrs. H. Smith, (Mrs. Young's knees).

*(our Alice's answer to 'one of those
 cards from sunny Florida:)*

*Oh is it the bite in the air,
 Or the ice on the roads and the trees?
 Or the feel of the frost in your hair
 When your toes are beginning to
 freeze?*

*Or is it the temperature
 When it goes away down below zero
 And a walk in the air, cold and pure,
 Makes one feel akin to a hero?*

*Or is it the promise of spring
 When the sun shines so bright all
 the day
 And we think of what summer
 will bring,*

*Ear muffs and fur coats put away?
 Or is it the glory of fall,
 With mountains and valleys ablaze,
 With beauty and color enough
 To remember the whole of one's days?*

*Oh we have all these in Quebec
 And lots more we don't talk about,
 And I'm a Quebecois, by heck!
 So I guess that I'll just stick it out.*